

XI.—On a new Subspecies of *Zaglossus*, with Remarks on other Species of the Genus. By OLDFIELD THOMAS and Lord ROTHSCHILD.

IN company with the mammals obtained in North-eastern New Guinea, in the region of the Saruwaged and Rawlinson Mountains, by the Dutch missionary Mr. C. Keysser, of which an account is given by Thomas in the 'Annals' for June 1922, there are four specimens of the rare and interesting animals referable to the genus *Zaglossus*.

In a paper* on the members of this genus, published in 1912, Mr. Glover Allen has expressed the opinion that all are referable to a single species, the variation in their characters being so great that no specific or subspecific forms can be considered as tenable. Many of the points in this paper were dealt with by Rothschild in 1913 †.

In exactly the opposite direction, Dr. C. Kerbert, of Amsterdam, has not only recognized ‡, as we should do, that there are several tenable forms of the (usually) three-clawed *Zaglossi* of western New Guinea, but he has founded a new genus—*Prozaglossus*—for the five-clawed *Z. bartoni* of the eastern part of the island.

While Dr. Kerbert has undoubtedly got the juster view of the case—for the lumping of the whole of the genus into one species is obviously unjustifiable,—we are not prepared to recognize the genus *Prozaglossus* as valid; for though it is true that every known specimen of *bartoni* is five-clawed §, yet there is too much variation in the presence or absence of claws external and additional to the three central ones of *bruijii* for their number to be considered as a generic character by itself.

Both Prof. Weber and Mr. Allen have recorded a number of variations in the claws, and to make this the basis of a generic division, in the entire absence of any cranial characters, would not, in our opinion, be at all advisable. No doubt *Z. bartoni* is quite a good species, and of this we now think we should make a special subspecies for the form which inhabits the Rawlinson Mountain region:—

Zaglossus bartoni clunius, subsp. n.

Similar to true *bartoni* in the presence of five claws on all

* Mem. Mus. Harvard, xl. no. 5, p. 253 (1912).

† Nov. Zool. xx. p. 188 (1913).

‡ Zool. Anzeiger, xlii. p. 162 (1913).

§ Unless the "tweijfelachtig soort" described in 1888 by Prof. Weber is a *bartoni* with one hind claw missing, as is not impossible ("Over een nieuwsoort van *Proechidna*," Mededeelingen over Zoogdieren, Amsterdam, 1888).

the feet, in the long thick black fur (which nearly or quite hides the spines), in the thickly clothed spineless under surface, and in the uniform whiteness of the spines. But the size is less, as is shown by the skull-measurements, the brain-case shorter and narrower, and the rostrum proportionately and markedly more slender, its breadth at 40 mm. from the tip 10 mm. in the largest specimen, as compared with 13 mm. in the type of *bartoni*, and 12·8 mm. at 70 mm. from the tip as compared with 15·2 mm. All the four available specimens, representing both sexes, agree in the proportions of the skull and the peculiar slenderness of the snout.

Of the following skull-measurements, the first in each case is that of the type of *clunius* and the second that of the type of *bartoni*, and these will show the differences between the two forms :—

Total length 183, 184 mm. ; basal length 171, 174 ; breadth of brain-case 54, 59·5 ; muzzle from level of lacrymal canal 117, 115 ; gnathion to back of palatal bones 160, 161 ; anterior root of zygoma to back of palatal bones 44, 49·5 ; least interorbital breadth 17·5, 20.

Hab. N.E. New Guinea. Type from the Saruwaged Mts., other specimens from the Rawlinson and Cromwell Mts.

Type. Adult female. No. R.M. 2. Collected by C. Keysser. Presented to the British Museum by Lord Rothschild. Four specimens examined.

[P.S.—In the above account Mr. Oldfield Thomas and I have only dealt with the five-toed *Zaglossus bartoni bartoni*, Thos., and its northern subspecies *Z. bartoni clunius*—i. e., the species of *Zaglossus* inhabiting New Guinea east of the Fly River. The species found west of the Fly River is the type of the genus *Zaglossus*, viz., *Zaglossus bruijni* (Peters and Doria). This species exhibits much greater external variation than does *Z. bartoni*, and I find at least six recognizable forms, four of which have been already named and described.

In spite of Mr. Glover Allen's very definite assertions, I am convinced, like Dr. Kerbert, that these forms are not individual aberrations, but represent well-defined local subspecies. Of the four described races, we know absolutely the locality of one of them only—*Zaglossus bruijni goodfellowii*, Thos.,—which was described from specimens captured on the island of Salwatti. Of the other three, we can safely assume the locality of the typical *Z. bruijni bruijni* to be the Arfak Peninsula (by the typical race I mean the pale-headed black-brown form described by Gervais, and assigned to *bruijni* by him, for the actual type of this form is a

skull of unknown origin). The remaining two, viz., *Z. bruijni villosissimus*, Dubois, and *Z. bruijni nigroaculeatus*, Rothschild, are of very doubtful origin, especially the latter, which was brought to England alive by a sailor.

I now proceed to describe two hitherto unnamed forms:—

Zaglossus bruijni gularis, subsp. n.

♀ ad. Similar to *Z. bruijni goodfellowii*, but larger; lacks all spines on the under surface, and has much heavier claws, especially on the fore feet. Skull very concave in occipital region above foramen magnum.

Hab. Foothills on south side of Charles Louis Mts., S.W. Dutch New Guinea.

Nine adult living examples and one young in spirit examined.

Type, no. 573 Tring Museum.

Zaglossus bruijni pallidus, subsp. n.

Differs from *Z. bruijni villosissimus* in having a whitish head and pale yellowish-brown pelage.

Hab. Inland from Geelvink Bay, Northern Dutch New Guinea.

Type no. 597 (Bruijn Coll.) Tring Museum.

I herewith append a key to the whole of the two species and eight forms of the genus *Zaglossus*:—

Key of *Zaglossus*.

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|----|---|------------------------------------|
| 1. | Number of claws 3 or 4 | 2. |
| | Number of claws 5 | 7. |
| 2. | Head whitish; body dark | 3. |
| | Head dark like body | 4. |
| 3. | Black-brown; hair shorter, spines more exposed | <i>Z. bruijni bruijni</i> . |
| | Yellowish brown; hair longer, spines mostly concealed | <i>Z. bruijni pallidus</i> . |
| 4. | Hair very long and thick, spines concealed | <i>Z. bruijni villosissimus</i> . |
| | Hair sparse, spines much exposed | 5. |
| 5. | Spines and hair blackish | <i>Z. bruijni nigroaculeatus</i> . |
| | Spines white or whitish | 6. |
| | Spines on underside; smaller; claws slenderer | <i>Z. bruijni goodfellowii</i> . |
| 6. | No spines on underside; very large; claws large and heavy | <i>Z. bruijni gularis</i> . |
| | Skull longer, rostrum thicker | <i>Z. bartoni bartoni</i> . |
| 7. | Skull shorter, rostrum more slender | <i>Z. bartoni clunius</i> . |